

Power supplies

Switch on DC microgrids

Pre charge units with many setting and diagnostic options

Our pre charge units are simple and reliable companions on the way to the future of DC microgrids.

DC microgrids are becoming increasingly important in industry. They enable an efficient and stable power supply and the simple integration of renewable energies and storage systems – essential for more sustainability and climate neutrality.

Pre charge units enable controlled, sequential ramp-up of industrial DC microgrids. This means that loads such as drives, motors, or complex load circuits can be started one after the other to avoid current peaks. Our pre charge units are available in several performance variants. Operating mode and switch-on delay can be set directly on the device. Further setting and diagnostic options can be selected via the optional communication interface.



Adaptable to any application:

For simple and quick commissioning, the operating mode and switch-on delay can be selected directly on the unit. With the optionally available communication interface, the pre charge unit can be precisely adapted to any application.

Extensive diagnostic options:

Faults are signalled via the integrated LED and the relay output. The optional communication interface can be used to set and monitor threshold values – e.g. for microgrid symmetry or sector capacity.

Conforms to the system concept:

The pre charge unit complies with all specifications of the DC Industry V3 system concept, which defines the general conditions of DC microgrids. This ensures smooth operation with other devices.

All advantages at a glance

Optional, external 24V supply

Device status detectable via fieldbus – even without DC microgrid

Simple fault detection

Even without communication, faults can be detected via LED and relay output

Control element on the device

Simple setting of the switch-on delay and operating mode (controller/device) directly on the device

Connections DC microgrid

Up to 16mm² possible, saves fuse protection in case of cross section reduction

Different variants

Pre charge units available for DC sectors with 40A, 100A or 500A

DC Industry V3 system concept

Complies with all specifications and thus ensures interoperability

Mounting options

In addition to mounting on DIN rail, wall mounting is also optionally possible

Optional communication interface

Comprehensive parameterisation and diagnosis of unit and DC sector can be performed via fieldbus



Ordering data

Variant	Type	Order No.
Pre charge unit, 650VDC, without optional communication, 40A DC sector	MAX PCU DC650 40	2921580000
Pre charge unit, 650VDC, with optional communication, 40A DC sector	TOP PCU DC650 40	2921590000
Pre charge unit, 650VDC, with optional communication, 100A DC sector	TOP PCU DC650 100	2921600000
Pre charge unit, 650VDC, with optional communication, 500A DC sector	TOP PCU DC650 500	2921610000